



Washington State Department of Ecology Environmental Information Management System (EIM)

Disclaimer and Data Reliability

Disclaimer

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Data Reliability Statement

The environmental data stored on this system is both current and historical. Historical data has been collected under a wide variety of geopositioning, sampling, analytical, and quality assurance regimes. For some of the historical data, particularly data collected before 1975, no formal quality assurance program can be associated with the data. For some pre-1980 data the analytical method used to generate data is undocumented. Some recent monitoring studies may have a Study Status of "QA Incomplete," which indicates that the data review has not been completed. Data associated with the "QA Incomplete" status is provisional and subject to change. Data users should be aware of these qualifications and use data from this system with caution.



Washington State Department of Ecology Environmental Information Management System (EIM)

Importing Data into Spreadsheets and Databases

EIM data can be easily imported into any spreadsheet or database application. All downloadable data files are in CSV format, a comma-delimited text file with a column-header row. All text values are enclosed in double quotes; numeric and date values are not enclosed in special characters. One note of caution, some spreadsheet applications place limits on the number of rows allowed in a single sheet. In the case of Microsoft Excel™ this limit is 65,536 rows. Specific import procedures are described for Microsoft Excel and Access applications:

Importing into Microsoft Excel 2002™

Launch Microsoft Excel 2002™. From the menu bar, select *File/Open*. A dialog box will appear. Change the *Files of Type* to *Text Files*. Browse to the directory where the EIM CSV file resides. Select it and click *Open*. Your EIM CSV file should import into Microsoft Excel 2002™ successfully. Alternatively, double-clicking on the CSV file should open it in Excel.

Importing into Microsoft Access 2002™

Launch Microsoft Access 2002™. From the menu bar, select *File/Get External Data/Import*. A dialog box will appear. Change the *Files of Type* to *Text Files*. Browse to the directory where the EIM CSV file resides. Select the EIM CSV file and click *Import*. The Import Text Wizard Dialog Box will appear. Check *Delimited* and click *Next*. Check *Comma*, *First Rows Contain Field Names*, select *double quote* as the Text Qualifier and click *Next*. From here, you have satisfied the minimum requirements for importation. You can edit any further configurations using the wizard. Your EIM CSV file should import into Microsoft Access 2002™ successfully.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Address	The physical address of a Location. This may not be the same as its mailing address. The address of a Location is not made public without special request.	1235 College Avenue, Lacey, WA, 98513.	Alpha, 40 characters.
Address, Additional	Additional field for the physical address of a Location. This may not be the same as its mailing address. The address of a Location is not made public without special request.		Alpha, 40 characters.
Chemical Abstracts Service (CAS) Number	A CAS Number is a unique identifying number assigned by the Chemical Abstracts Service (CAS) Division of the American Chemical Society to each distinct chemical substance recorded in the CAS Chemical Registry System. The CAS Number is accepted nationally and internationally as an identifier for specific, definable chemical substances.	CAS Number for Arsenic: 7440-38-2.	N/A
City	The name of the city or area in which the field Location exists or to which it is closest.	Bellingham, Ephrata, Hatton, Kennewick, Moses Lake, Mt. Rainier National Park, Oroville, Sedro Woolley, Umatilla National Forest, etc.	Alpha, 25 characters.
Congressional District Number	The number of the US Congressional District in which the Location exists. There are nine Congressional Districts in Washington.	01 = US Congressional District No. 01.	Integer: 01-09
Coordinate Referencing System	Name of the coordinate referencing system being used to identify the field Location. EIM accepts four coordinate referencing systems.	Latitude/Longitude (LAT/LONG, Ecology's standard coordinate referencing system); Washington State Plane Coordinate System (SPCS); Section Township Range Grid System (STR); Universal Transverse Mercator Grid System (UTM).	Alpha, 8 characters: LAT/LONG, SPCS, STR, UTM.
County	The name of the county in which the monitoring Location exists. There are 39 counties in Washington.	Douglas, Grays Harbor, Pierce, Spokane, Walla Walla, etc.	Alpha, 20 characters.
Ecology Region	The Ecology Region in which the Location exists.	Central (CRO), Eastern (ERO), Northwest (NWRO), Southwest (SWRO).	Alpha, 8 characters, Values: CRO, ERO, NWRO, SWRO

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Field Activity Comment	Any comments or descriptive information about the field activity that took place.	Visibility was poor due to heavy rain.	Alpha/numeric, 254 characters.
Field Activity Data Originator	Name or type of organization that measured or collected the data.	Business, Trained Staff; Conservation District; Consultant, Professional; Department of Ecology; Government, Misc. Federal; Government, Misc. Local; Government, Misc. State; Government, Tribal; Health Dept., Local; Health Dept., State; US Environmental Protection Agency; US Geological Survey; Utility, Private; Utility, Public; Volunteer, Trained; Well Driller; Well Owner.	Alpha, 15 characters: Business, ConsDistrict, Consultant, Ecology, GovFed, GovLocal, GovState, GovTribal, HealthLocal, HealthState, USEPA, USGS, UtilityPrivate, UtilityPublic, Volunteer, WellDriller, WellOwner
Field Activity Date Range	The range of dates between which field activities occurred. Specified as a minimum and a maximum date.	02/14/1995 through 08/27/2002	Date, MM/DD/YYYY format.
Field Activity Depth Unit of Measure (UOM)	Units used when measuring the distance from the Field Activity Reference Point to the upper and lower boundary of the zone within which the field activity is conducted or over which the field activity is integrated.	cm - centimeters, Angst - Angstroms, Nmi - nautical miles, yd - yards, m - meters, Km - Kilometers, in - inches, ft - feet, mm - millimeters, nm - nanometers, mi - miles	Alpha/numeric, 10 characters: cm, Angst, Nmi, yd, m, Km, in, ft, mm, nm, mi.
Field Activity End Date	The date that the field activity (sample collection, field measurement, field observation) ended. If a field activity is essentially instantaneous, a Field Activity End Date is often not specified.	03/23/2003	Date, MM/DD/YYYY format.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Field Activity End Date/Time	The date and time that the field activity (sample collection, field measurement, field observation) ended. If a field activity is essentially instantaneous, a Field Activity End Date is often not specified. Time is expressed in military (24-hour) time. This field is concatenated for those who wish to have both date and time in a single field.	03/23/2003 16:39:04	Date/Time, MM/DD/YYYY HH:MM:SS format
Field Activity End Time	The time that the Field Activity (sample collection, field measurement, field observation) ended. Expressed in military (24-hour) time. If a Field Activity is essentially instantaneous, a Field Activity End Time is often not specified.	16:39:04	Time, HH:MM:SS. A time of 00:00:00 indicates that a Field Activity End Time was not specified or is not known.
Field Activity Lower Depth	Distance from the Field Activity Reference Point to the lower boundary of the zone within which a Field Activity is conducted or over which a Field Activity is integrated.	2	Float, 5 places, 2 decimals.
Field Activity Maximum Date	In specifying the date range between which field activities occurred, the maximum (most recent) date for which data is to be displayed.	03/24/2003	Date, MM/DD/YYYY format.
Field Activity Minimum Date	In specifying the date range between which field activities occurred, the minimum (oldest) date for which data is to be displayed.	12/15/1986	Date, MM/DD/YYYY format.
Field Activity Reference Point	Reference point from which the depth of the field activity was measured.	Stream Surface, Land Surface Datum (LSD), etc.	Alpha/numeric, 30 characters.
Field Activity Start Date	The date that the field activity (sample collection, field measurement, field observation) commenced. If a Field Activity is essentially instantaneous, a Field Activity End Date is often not specified.	06/15/1996	Date, MM/DD/YYYY format. A date of 1/1/1900 indicates that a Field Activity Start Date is not specified or is unknown.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Field Activity Start Date/Time	<p>The date and time that the field activity (sample collection, field measurement, field observation) commenced. If a Field Activity is essentially instantaneous, a Field Activity End Date is often not specified. Time is expressed in military (24-hour) time.</p> <p>This field is concatenated for those who wish to have both date and time in a single field.</p>	06/15/1996 13:24:30	Date/Time, MM/DD/YYYY HH:MM:SS format
Field Activity Start Time	The time that the Field Activity (sample collection, field measurement, field observation) commenced. Expressed in military (24-hour) time. If a Field Activity is essentially instantaneous, a Field Activity End Time is often not specified.	13:24:30	Time, HH:MM:SS format. A time of 00:00:00 indicates that a Field Activity Start Time was not specified or is not known.
Field Activity Type	<p>The type of Field Activity being performed:</p> <p>Sample: Something extracted from its environmental setting using some type of equipment, usually for analysis in the a lab. A sample result has a numerical value obtained using analytical methods.</p> <p>Measurement: Something measured in its environmental (field) setting usually using some type of instrument. A measurement result has a numerical value.</p> <p>Observation: Something observed in its environmental setting, usually without using any type of instrument. An observation result does not have a numerical value; it generally has a text description.</p>	Sample	Alpha/numeric, 11 characters: Sample, Measurement, Observation.
Field Activity Upper Depth	Distance from the Field Activity Reference Point to the upper boundary of the zone within which a Field Activity is conducted or over which a Field Activity is integrated.	1	Float, 5 places, 2 decimals.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Geographic Location User-Verified Flag	A Yes (Y) or No (N) flag that indicates whether the person responsible for entering a Location into EIM has checked and verified its geographic position.		Alpha, 1 character: Y or N
Ground Water Level Elevation (in feet)	The EIM-calculated value for the water level elevation in a well above or below mean sea level (MSL). Reported in feet.	50.721, -3.20	Float, 7 places, 3 decimals.
Horizontal Accuracy Measure	The range within which the measured value of the horizontal coordinate for the Location may vary from the actual value.	01 - <0.01m; 02 - =>0.01m <0.1m; 03 - =>0.1m <1m; 04 - +/- 10ft(3m); 05 - +/- 20ft(6m); 06 - +/- 40ft(12m); 07 - +/- 100ft(35m); 08 - +/-180(55m); 09 - +/- 250ft; 10 - +/- 500ft; 11 - +/- 1000ft; 12 - +/- 2000ft; 13 - >2000ft; 99 - unknown	Integer, 2 places: 01-13, 99

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Horizontal Collection Method	Technique used to collect the horizontal coordinates of a Location.	1 - Address Matching - Block Face; 2 - Address Matching - House Number; 3 - Address Matching - Street Centerline; 4 - Address Matching - Unknown; 5 - Aerial Photography - Rectified; 6 - Aerial Photography - Unknown; 7 - Aerial Photography - Unrectified; 8 - Cadastral Survey (conventional land survey); 9 - Census Block 1990 Centroid; 10 - Census Block Group 1990 Centroid; 11 - Conversion from STR; 12 - Digital or manual raw photo extraction; 13 - Digitized off CTR screen/digital data; 14 - Digitized - paper map; 15 - GPS carrier phase (employs the satellite code's carrier signal to improve accuracy); 16 - GPS code phase (measurements based on pseudo random code broadcast by satellite); 17 - GPS kinematic (tracking location while moving using carrier phase); 18 - GPS (Unknown); 19 - Hand measured - paper map (interpolation); 20 - LORAN-C; 21 - Orthophotography - digital; 22 - Orthophotography - paper; 23 - Satellite Imagery - Landsat MSS (Multi Spectral Scanning); 24 - Satellite Imagery - Landsat TM (Thematic Mapper); 25 - Satellite Imagery - Other; 26 - Satellite Imagery - SPOT Panchromatic; 27 - Satellite Imagery - SPOT Multi Spectral; 28 - Zip Code Centroid; 29 - GPS (Code/Differential); 99 - unknown	Integer, 2 places: 01-29, 99

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Horizontal Reference Datum	<p>Model used to match the horizontal position of features on the ground to coordinates and Locations on a map.</p> <p>NOTE - When taking GPS measurements, it is very important to record your datum!</p>	<p>01 - N. American Datum 1927 (NAD27- used on many USGS quad maps or NOAA charts);</p> <p>02 - N. American Datum 1983 (NAD83 or 91 Adj. – based on Earth and satellite observations, similar to WGS84 but specific to North America.);</p> <p>03 - High Accuracy Reference Network (HARN – similar to NAD83, but more accurate per GPS observations);</p> <p>04 - World Geodetic System of 1984 (WGS84 – world datum, based on Earth and satellite observations);</p> <p>99 - unknown.</p>	Integer, 2 places: 01-04, 99
Horizontal Reference Point	General description of the geographic position of the Location in relationship to the ground.	<p>01 - centroid of STR unit;</p> <p>02 - centroid of STR ¼ section;</p> <p>03 - centroid of ¼ ¼ section;</p> <p>04 - centroid of ¼ ¼ ¼ section;</p> <p>05 - facility/site centroid;</p> <p>06 - NE corner of land parcel;</p> <p>07 - NW corner of land parcel;</p> <p>08 - plant entrance;</p> <p>09 - SE corner of land parcel;</p> <p>11 - SW corner of land parcel;</p> <p>21 - stream center;</p> <p>22 - near left bank;</p> <p>23 - near right bank;</p> <p>24 - monitoring location;</p> <p>99 - unknown</p>	Integer, 2 places: 01-09, 11, 21-24, 99
Latitude	Distance north or south of the equator in degrees-minutes-seconds.	Range for WA: 45 00 00.00 - 49 59 59.99	N/A, Range for WA: 45 00 00.00 - 49 59 59.99
Latitude Decimal Measure	Distance north or south of the equator. Decimal equivalent to the degrees-minutes-seconds latitude value of a Location.	Range for WA: 45.000000-49.999999	Float, 3 places, 6 decimals; Range for WA: 45.000000-49.999999
Latitude Degrees	The degrees measure of the Location's latitude.	Range for WA: 45-49	Integer, 2 places; Range for WA: 45-49
Latitude Minutes	The minutes measure of the Location's latitude.	Range: 00-59	Integer, 2 places; Range: 00-59

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Latitude Seconds	The seconds measure of the Location's latitude.	Range: 00.00-59.99	Float, 2 places, 2 decimals; Range: 00.00-59.99
Legislative District Number	The number of the Washington Legislative District in which the Location exists.	01 = WA Legislative District No. 01	Integer, 2 places.
Location Capped Flag	A Yes (Y) or No (N) flag that indicates whether a field Location has been capped. Primarily for cleanup and sediment sites.	Y, N	Alpha, 1 character: Y or N.
Location Description	Information that describes the place a Location exists. River Mile information can be put here.	200 yards north of the cattle crossing grating on Laumann Road, north of the intersection with Heidi Road.	Alpha/numeric, 254 characters
Location Dredged Flag	A Yes (Y) or No (N) flag that indicates whether a field Location has been dredged (primarily for sediment cleanup sites).		Alpha, 1 character: Y or N.
Location Geometric Type Code	Identifies which of three spatial types best describes the Location, Point (P), Line (L), or Area (A).		Alpha, 1 character: P, L, or A
Location Index Number	A numeric address on the water course segment.		Alpha, 10 characters.
Location Name	<p>The name assigned by the responsible person, typically the Study Lead, to identify a particular Location. Formerly known as a Station Name in EIM.</p> <p>A well is referred to as a Well Location. For Wells, the Well Tag Number is often used as the Location Name (AAB123).</p>	Humptulips River Near Mouth; AAB123.	Alpha, 40 characters.
Location Status	Current activity status of the Location - Active, Inactive, or Seasonal.	Active, Inactive, or Seasonal.	Alpha, 15 characters: Active, Inactive, Seasonal.
Location System ID	A unique, system-generated ID assigned to each Location by EIM.		Integer

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Location Type	Term that best describes the field location in relation to the surrounding environment. Note that these are NOT regulatory definitions. Well Locations are classified as "Land."	AIR/CLIMATE - atmospheric monitoring; ESTUARY - area where fresh and salt water intermix, such as in river mouths, bays, lagoons, etc; INTERTIDAL - area between the extremes of high and low tide; LAKE/POND/RESERVOIR - inland water body, usually fresh; LAND - on or below surface, includes wells; OCEAN - area beyond the estuarial environment; RIPARIAN ZONE - bank area of a natural water course; SOURCE - point source, such as an industrial or agricultural effluent discharge or a discharge pond; SPRING - point where ground water emerges to create surface water flow; STREAM/RIVER - channeled flowing water; WETLAND - land area that is periodically inundated by surface or ground water on an annual or seasonal basis; OTHER - used when none of the other categories fit.	Alpha, 20 characters: Air/Climate, Estuary, Intertidal, Lake/Pond/Reservoir, Land, Ocean, Riparian Zone, Source, Spring, Stream/River, Wetland, Other.
Location Waterbody ID	A code (alternative to Location Index Number) used by Ecology to indicate the waterbody (rivers, streams, lakes, bays, etc.) on which the field Location exists, if appropriate. Also known as the LL (latitude-longitude) ID. To find an LL ID, go to http://apps.ecy.wa.gov/website/facsite/viewer.htm and choose either Streams or Water Bodies as the primary layer, depending on where your site is located. Zoom in and use the "identify" feature to get the LL ID.	1223590472610 (Hylebos Creek).	Alpha, 15 characters.
Location Well Flag	A Yes (Y) or No (N) flag that indicates whether a field Location is a Well. Additional data must be entered for a Well Location.		Alpha, 1 character, Y or N

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Locations	<p>The monitoring or field Locations (formerly Stations) associated with the query results on this page.</p> <p>A Location is the physical place where sample collection, measurements, or observations occur. It is uniquely identified by a User Location ID and Location Name. A monitoring Location is required to have a documented geographic location, reported by EIM as latitude and longitude values.</p>	Humptulips River Near Mouth; AAB123.	N/A
Longitude	Distance east or west of the Central Meridian (Greenwich, England) in degrees-minutes-seconds.	Range for WA: 116 00 00.00 - 125 59 59.99	N/A, Range for WA: 116 00 00.00 - 125 59 59.99
Longitude Decimal Measure	Distance east or west of the Central Meridian (Greenwich, England). Decimal equivalent to the degrees-minutes-seconds longitude value.	Range for WA: 116.000000 – 125.999999	Float, 3 places, 6 decimals; Range for WA: 116.000000 – 125.999999
Longitude Degrees	The degrees measure of the Location's longitude.	Range for WA: 116-125	Integer, 3 places; Range for WA: 116-125
Longitude Minutes	The minutes measure of the Location's longitude.	Range: 00-59	Integer, 2 places; Range: 00-59
Longitude Seconds	The seconds measure of the Location's longitude.	Range: 00.00-59.99	Float, 2 places, 2 decimals; Range: 00.00-59.99
Method Category	Categories of related methods. Analysis (Lab) and Measurement (Field) are associated with Result Reported Values. Collection, Preservation, and Preparation are associated with Samples.	<p>ANALYSIS: EPA6020 - Dissolved Lead;</p> <p>MEASUREMENT: CONDMETER - Conductivity, meter;</p> <p>COLLECTION: 53 - Fish collection, hook and line;</p> <p>PREPARATION: SOP730040 - Fish Tissue preparation, Ecology SOP 730040;</p> <p>PRESERVATION: ICECHEST - Sample preserved on ice in cooler.</p>	Alpha/numeric, 12 characters: Analysis, Collection, Measurement, Preparation, Preservation.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Method Code	Code assigned to a procedure (method) used to collect, preserve or prepare a sample or derive a result (lab/analytical or field/measurement). Has an accompanying Method Description. New Method Codes and Descriptions are added to EIM as necessary, a process managed by the EIM Data Coordinator.	SW7060A (metals)	Alpha/numeric, 10 characters.
Method Description	Brief description of a Method. Has an accompanying Method Code. Method Codes and Descriptions are added to EIM as necessary, a process managed by the EIM Data Coordinator.	Method Code "DPD-COLOR" = Method Description "DPD Colorimetric method, HACH Test Kit for Chlorine."	Alpha/numeric, 254 characters.
Method Source	Source from which a method is derived. This field is not always populated.	EPA, MEL (Ecology's Manchester Lab), etc.	Alpha/numeric, 10 characters.
NAD83 Latitude Decimal Measure	Distance north or south of the equator. North American Datum of 1983 (NAD83) decimal equivalent to the degrees-minutes-seconds latitude value of a Location. The EIM system converts all Location coordinates to NAD83 using Geographic Information System technology. The original coordinates are also stored.	Range for WA: 45.000000-49.999999	Float, 3 places, 6 decimals; Range for WA: 45.000000-49.999999
NAD83 Longitude Decimal Measure	Distance east or west of the Central Meridian (Greenwich, England). North American Datum of 1983 (NAD83) decimal equivalent to the degrees-minutes-seconds longitude value. The EIM system converts all Location coordinates to NAD83 using Geographic Information System technology. The original coordinates are also stored.	Range for WA: 116.000000 – 125.999999	Float, 3 places, 6 decimals; Range for WA: 116.000000 – 125.999999

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Parameter (Result Parameter Name)	<p>A Parameter (aka Result Parameter Name and formerly know as a Characteristic), is defined as something that is to be measured or determined. In the context of EIM, Parameters represent the measurement or observation of environmental processes and conditions or a determination of the concentration of one, or a group, of chemical analytes. Parameters can represent physical processes (temperature, wind speed), chemicals (zinc, dioxin, ammonia), and biological composition, quantity, and diversity.</p> <p>New Parameters are added to EIM as necessary, a process managed by the EIM Data Coordinator.</p>	4,6-Dinitro-2-Methylphenol; 1(3h)-Isobenzofuranone; Fish Total Length, Max Individual in Composite Sample; Flow (daily average); Water level in well (depth below measuring point), etc.	Alpha/numeric, 60 characters.
Parameter Group	<p>A group of Parameters (formerly Characteristics) that are related in some way, such as metal analytes, pesticide compounds, or PCBs. This allows rapid searching for related Parameters.</p> <p>A Parameter is defined as something that is to be measured or determined. In the context of EIM, Parameters represent the measurement or observation of environmental processes and conditions or a determination of the concentration of one, or a group, of chemical analytes. Parameters can represent physical processes (temperature, wind speed), chemicals (zinc, dioxin, ammonia), and biological composition, quantity, and diversity.</p>	Abundance; Alkanes; Bacteriological Contaminants; Biological Measures; BNA; Chlordane; Dioxins and Furans; Dissolved Oxygen; Habitat Measures; HPAH; LPAH; Metals; Nutrients; PAH; PAH carcinogenic; PBTs (Ecology Initial Focus); PBTs (EPA screening list); PCB; Pesticide; Pesticide (misc.); Pesticide (Nitrogen); Pesticide (Phosphorus); Pesticide (Poly Chlorinated); Radionuclide; Salmon Impact; Streamflow; Temperature; TPH; VOA; Water Quality 303(d) List; Well (water level).	Alpha/numeric, 40 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Parameter List	<p>A list of all available Parameters in the EIM system.</p> <p>A Parameter (formerly know as a Characteristic), is defined as something that is to be measured or determined. In the context of EIM, Parameters represent the measurement or observation of environmental processes and conditions or a determination of the concentration of one, or a group, of chemical analytes. Parameters can represent physical processes (temperature, wind speed), chemicals (zinc, dioxin, ammonia), and biological composition, quantity, and diversity.</p> <p>New Parameters are added to EIM as necessary, a process managed by the EIM Data Coordinator.</p>	4,6-Dinitro-2-Methylphenol; 1(3h)-Isobenzofuranone; Fish Total Length, Max Individual in Composite Sample; Flow (daily average); Water level in well (depth below measuring point), etc.	Alpha/numeric, 60 characters.
Parameter Procedure Required Flag	A Yes (Y) or No (N) flag that indicates whether a specific analytical procedure is required for the Parameter of interest. Primarily for chemical parameters.		Alpha, 1 character: Y or N
Parameter Sample Fraction Required Flag	A Yes (Y) or No (N) flag that indicates whether a sample fraction (refer to Result Sample Fraction) is required for the Parameter of interest. Primarily for metals.		Alpha, 1 character: Y or N
Parameter Unit of Measure (UOM) Type	A code indicating which Units of Measure (UOM) type(s) is/are valid when recording results for a specific characteristic.	Area; Flow; Gender; Length; Miscellaneous; Production (ex. pounds per acre per year); Radiation; Substance (chemical); Temperature; Time; Velocity; Volume.	Alpha/Numeric, 10 characters: Area, Flow, Gender, Len, Misc, Prod, Rad, Subst, Temp, Time, Vel, Vol.
Parameter Usage Type	Indicates whether the Parameter of interest is derived from field measurements, lab analyses, or both.	Field	Alpha/numeric, 13 characters: Blank Space, Field, Lab, Field and Lab

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Quarter Section/Township/Range Code	In the Section/Township/Range (STR) Grid System, denotes the first-level Quarter Section. Equals 1/4 Section or 160 acres.		Alpha, 2 characters: NE, NW, SE, SW
Quarter-Quarter Section/Township/Range Code	In the Section/Township/Range (STR) Grid System, denotes the second-level Quarter Section. Equals 1/16 Section or 40 acres.		Alpha, 2 characters: NE, NW, SE, SW.
Quarter-Quarter-Quarter Section/Township/Range Code	In the Section/Township/Range (STR) Grid System, denotes the third-level Quarter Section. Equals 1/64 Section or 10 acres.		Alpha, 2 characters: NE, NW, SE, SW
Range Direction Code	In the Section/Township/Range (STR) Grid System, denotes whether the Location exists east or west of a meridian, the vertical line from which the survey began. In Washington, all Locations are either east or west of the Willamette Meridian, which bisects the state through Puget Sound.		Alpha, 1 character: E, W.
Range Number	In the Section/Township/Range (STR) Grid System, denotes, the number of Range units east or west of a meridian, the vertical line from which the survey began. In Washington, all Locations are either east or west of the Willamette Meridian, which bisects the state through Puget Sound.		Integer, 2 places: 01-47
Responsible Ecology Program	The name of the Ecology Environmental Program under which a Study was conducted.	AirQuality, Environmental Assessment, Hazardous Waste/Toxics Reduction, Toxics Cleanup, Water Quality, Water Resources, etc.	Alpha, 10 characters
Result Additional Comment	Additional comments about the Result Reported Value. This field is used if the Result is flagged as "Rejected."		Alpha/numeric, 254 characters.
Result Confidence	The confidence interval associated with the Result Reported Value, if appropriate.	90, 95, 99, 99.9	Alpha/numeric, 4 characters: 90, 95, 99, 99.5.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Result Data Qualifier	Lab data qualifier or groundwater level measurement qualifier for Result Reported Value . Used for quality assurance/quality control purposes.	<p>LAB DATA QUALIFIERS:</p> <p>E - Reported result is an estimate. G - Value is greater than result reported; J - Analyte was positively identified. The associated numerical result is an estimate; J? - Historical data qualifier that does not exist in EIM, but which may be reasonably interpreted as, "The analyte was positively identified, consider the associated numerical an estimate"; N - For organic analytes, there is evidence the analyte is present in this sample; NAF - Not analyzed for; NC - Not calculated; NJ - There is evidence that the analyte is present. The associated numerical result is an estimate; QNS - Quantity not sufficient for analysis; REJ - Data are unusable for all purposes; R? - Historical data qualifier that does not exist in EIM, but which may be reasonably interpreted as, "The analyte is unreliable and therefore unusable;" U - The analyte was not detected at or above the reported result; U? - Historical data qualifier that does not exist in EIM, but which may be reasonably interpreted as, "The analyte was not detected at or above the reported result;" UJ - The analyte was not detected at or above the reported result; UJ? - Historical data qualifier that does not exist in EIM, but which may be reasonably interpreted as "The analyte was not detected at or above the reported estimated result."</p>	Alpha/Numeric, 3 Characters: E, G, J, J?, N, NAF, NC, NJ, QNS, REJ, R?, U, U?, UJ, WLD, WLE, WLF, WLG, WLH, WLI, WLN, WLO, WLP, WLR, WLS, WLT, WLX, WLV, WLW, WLZ

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
		<p>GROUNDWATER LEVEL MEASUREMENT QUALIFIERS:</p> <p>WLD - The site was dry (no water level is recorded);</p> <p>WLE - The site was flowing recently;</p> <p>WLF - The site was flowing, but the head could not be measured;</p> <p>WLG - A nearby site that taps the same aquifer was flowing;</p> <p>WLH - A nearby site had been flowing recently;</p> <p>WLI - Injector site (recharge water being injected);</p> <p>WLJ - Injector site monitor (a nearby site is injecting);</p> <p>WLN - The measurement was discontinued;</p> <p>WLO - An obstruction was encountered in the well;</p> <p>WLP - The site was being pumped;</p> <p>WLR - The site has been pumped recently;</p> <p>WLS - A nearby site was being pumped;</p> <p>WLT - A nearby site had been pumped recently;</p> <p>WLX - Water level affected by a nearby surface water stage;</p> <p>WLV - Foreign substance was present on the water;</p> <p>WLW - The well was destroyed;</p> <p>WLZ - Other conditions that could affect the measured level.</p>	
Result Date	The date when the Result Reported Value was produced by a laboratory analysis or a measurement in the field. For field measurements, this will be the same as Field Activity Start Date and/or Field Activity End Date. For lab analyses, this can be important where the delay between sampling and analysis might affect the Result Reported Value.	02/25/1999	Date, MM/DD/YYYY format.
Result Date Accuracy	Indicates whether the result analysis or measurement date is accurate to the day, month or year.	D - Day; M - Month; Y - Year	Alpha, 1 character: D, M, Y

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Result Date/Time	<p>The date and time when the Result Reported Value was produced by a laboratory analysis or a measurement in the field. For field measurements, this will be the same as Field Activity Start Date/Time and/or Field Activity End Date/Time. For lab analyses, this can be important where the delay between sampling and analysis might affect the Result Reported Value.</p> <p>This field is concatenated for those who wish to have both date and time in a single field.</p>	02/25/1999 12:25:00	Date/Time, MM/DD/YYYY HH:MM:SS format
Result Instrument Reading	The actual instrument-recorded value for a test. This value can differ from the Result Reported Value. An example would be when an analyte is measured below the method detection limit.		Float.
Result Lab Name	Name of lab that processed the samples. Not necessarily the lab to which the samples were originally sent.	Manchester Lab	Alpha/numeric, 60 characters.
Result Method Code	<p>Code assigned to a procedure (method) used to derive a result. Has an accompanying Result Method Description. Includes lab (analytical) and field (measurement) methods.</p> <p>Result Method Codes and Descriptions are added to EIM as necessary, a process managed by the EIM Data Coordinator.</p>	SW7060A (metals)	Alpha/numeric, 10 characters.
Result Method Description	<p>Description assigned to a procedure (method) used to derive a result. Has an accompanying Result Method Code. Includes lab (analytical) and field (measurement) methods.</p> <p>Result Method Codes and Descriptions are added to EIM as necessary, a process managed by the EIM Data Coordinator.</p>	SW7060A (metals)	Alpha, 100 characters
Result Parameter Lab ID	Unique identifier provided by a lab for a Parameter. Can be either: 1. Modified (non-hyphenated) Chemical Abstract Service (CAS) Number; or 2. Non-CAS alpha/numeric code assigned by a lab.		Alpha/numeric, 12 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Result Quality	Subjective quality remark about a result, for marine data ("MA" codes) and groundwater level measurement data ("WL" codes). Marine data codes are per the Marine Database.	<p>MARINE DATA QUALITY:</p> <p>MA1 - State of art method, adequate QC; MA2 - Less precise method or QC; MA3 - Known or suspected data problem; MA4 - Unknown method or QC; MAC - Calculated variable.</p> <p>GROUNDWATER LEVEL MEASUREMENT QUALITY:</p> <p>WL0 - Water level accurate to +/- 1ft; WL1 - Water level accurate to +/- 0.1ft; WL2 - Water level accurate to +/- 0.01ft; WL3 - Water level accurate to +/- 1m; WL4 - Water level accurate to +/- 0.1m; WL5 - Water level accurate to +/- 0.01m.</p>	Alpha/numeric, 3 characters: MA1, MA2, MA3, MA4, MAC, WL0, WL1, WL2, WL3, WL4, WL5.
Result Rejected Flag	A Yes (Y) or No (N) flag that indicates whether a user has rejected a particular result record (Sample or Measurement) for a specific reason. In order to complete the rejection of a result, the user also must enter a reason for the rejection in either of two attribute text fields, Result Validation Method or Result Value Comment.		Alpha, 1 character: Y or N.
Result Reported Value Number	The numerically stored Result Reported Value for a particular Parameter.		Float. This value must be reported in conjunction with a Parameter, UOM, Method, and Data Qualifier.
Result Reported Value Text	The Result Reported Value shown exactly as it was entered into the database, stored in text format.		Alpha/numeric, 10 characters. This value must be reported in conjunction with a Parameter, UOM, Method, and Data Qualifier.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Result Sample Fraction	For metals - type of fractionation used to process a sample. Fractionation involves separation of a chemical compound into components, as by distillation or crystallization.	Dissolved, Total, HF Total, Suspended, Total Recoverable.	Alpha/numeric, 15 characters: Dissolved, HF Total, Suspended, Tot Recoverable, Total.
Result System ID	A unique, system-generated ID assigned to each Result by EIM.		Integer
Result Taxon ITIS Code	<p>The Integrated Taxon Identification System (ITIS) is the result of a partnership among federal agencies formed to satisfy their mutual needs for scientifically credible taxonomic information. ITIS features a database with reliable information on species names and their hierarchical classification. ITIS includes documented taxonomic information for flora and fauna from both aquatic and terrestrial habitats.</p> <p>In EIM, this field is not strictly limited to ITIS Codes. It may hold one of two types of codes. For freshwater organisms, this value is an actual ITIS Code (6-characters). For marine organisms, we use National Ocean Data Center (NODC) Codes (generally 4 characters).</p>	114082	Float, 10 places.
Result Taxon Level Code	The taxonomic level of the subject taxa.	Kingdom, Phylum, Class, Order, Family, Genus, Species.	Alpha, 7 characters.
Result Taxon Name	The full Latin name for the taxonomic level of the Result Taxon.	Arthropoda	Alpha/numeric, 60 characters.
Result Time	The time when the Result Reported Value was produced by a laboratory analysis or a measurement in the field. For field measurements, this will be the same as Field Activity Start Time and/or Field Activity End Time. For lab analyses, this can be important where the delay between sampling and analysis might affect the Result Reported Value.	12:34:00	Time, HH:MM:SS format.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Result Unidentified Species	A placeholder taxonomic identification. Used with a valid genus name to indicate that a unique species has been observed but not taxonomically identified.	Sp.1, Sp.2, Sp.3, Sp.4, Sp.5, Sp.6, Sp.7, Sp.8, Sp.9, Spp.	Alpha/numeric, 10 characters: Sp.1, Sp.2, Sp.3, Sp.4, Sp.5, Sp.6, Sp.7, Sp.8, Sp.9, SPP
Result Validation Method	Description of the validation method used for the Result Reported Value.	Lab-generated duplicates.	Alpha/numeric, 254 characters.
Result Value Comment	Comments about the Result Reported Value or Observation.	Cloud cover was approximately 20%; flow was unmeasurable	Alpha, 254 characters.
Result Value Unit of Measure (UOM)	Units in which a Parameter's Result Reported Value is reported.	PPM, kg/L, FT, CM, etc.	Alpha/numeric, 10 characters.
Result Well Measuring Point Name	The name of the Well Measuring Point with which the Result is associated. Primarily for water levels in wells.	MP1, MP2	Alpha, 8 characters.
Results	The Results associated with a particular Study or field Location. Results represent specific information about an environmental Parameter or Measurement. Results are determined by field measurement(s), physical observation(s), or analytical procedure(s) performed on samples. Results are the basis for the analysis of environmental conditions.		N/A
Sample Chain of Custody Flag	A Yes (Y) or No (N) flag that indicates whether or not a chain of custody was required for the sample. Chain of custody information is typically required where the results from the sample are to be used for enforcement action purposes. Such samples will be subject to more rigorous control and management procedures than might normally be applied.		Alpha, 1 character: Y or N.
Sample Composite Flag	A Yes (Y) or No (N) flag that indicates whether or not the sample represents a combination or composite of other samples.		Alpha, 1 character: Y or N.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Sample ID	Code used to identify a sample. May be a number selected by the sampler or a pre-assigned number designated by the lab.		Alpha/numeric, 15 characters.
Sample Lab Name	Lab to which the sample was originally sent. Not necessarily the same lab that produced the results.	Manchester Lab	Alpha/numeric, 60 characters.
Sample Matrix	Describes the environmental medium which was measured or from which a sample was taken.	Air; Other/Liquid; Solid/Liquid; Solid/Sediment; Tissue; Water.	Alpha/numeric, 14 characters.
Sample Matrix / Result Value Unit of Measure (UOM)	<p>Sample Matrix describes the environmental medium which was measured or from which a sample was taken.</p> <p>Result Value Unit of Measure (UOM) is/are the unit(s) of measure associated with the Parameter's Result Reported Value.</p> <p>Pick the Sample Matrix and Result Value UOM in which you want your results presented.</p>		N/A
Sample Method Code	<p>Code assigned to a procedure (method) used to collect, preserve or prepare a sample. Has an accompanying Method Description. A sample can be associated with more than one Sample Method.</p> <p>New Method Codes and Descriptions are added to EIM as necessary, a process managed by the EIM Data Coordinator.</p>	<p>COLLECTION: 53 = Fish collection, hook and line;</p> <p>PREPARATION: SOP730040 - Fish Tissue preparation, Ecology SOP 730040;</p> <p>PRESERVATION: ICECHEST = Sample preserved on ice in cooler.</p>	Alpha/numeric, 10 characters.
Sample Method Description	<p>Description of the procedure (method) used to collect, preserve or prepare a sample. Has an accompanying Sample Method Code. A sample can be associated with more than one Sample Method.</p> <p>Method Codes and Descriptions are added to EIM as necessary, a process managed by the EIM Data Coordinator.</p>	<p>COLLECTION: 53 = Fish collection, hook and line;</p> <p>PREPARATION: SOP730040 - Fish Tissue preparation, Ecology SOP 730040;</p> <p>PRESERVATION: ICECHEST = Sample preserved on ice in cooler.</p>	Alpha/numeric, 254 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Sample Preservation Method Name	The name of the chemical or physical method used to preserve the sample, if applicable.		Alpha/numeric, 15 characters.
Sample Preservation Method Name	The name of the chemical or physical method used to preserve the sample.		Alpha/numeric, 15 characters.
Sample Refrigeration Temperature	Temperature at which the sample was refrigerated, if applicable. In kelvins (deg K), degrees Fahrenheit (deg F) or degrees Celsius (deg C).		Integer, 3 places.
Sample Replicate Flag	A Yes (Y) or No (N) flag that indicates whether or not a replicate sample exists. Replicates are samples of the same type and medium taken at the same time and place, using the same Sample Method(s). They are used primarily to estimate sample variability. Replicate samples may have the same Sample ID in certain instances.		Alpha, 1 character: Y or N.
Sample Source	Describes the environmental resource which was measured or from which a sample was taken. More specific than Sample Matrix.	Animal Tissue, Brackish, Fresh/Surface Water, Freshwater Sediment, Groundwater, Habitat, Indoor Air, Outdoor Air, Plant Tissue, Precipitation, Rock/Gravel, Salt/Marine, Sediment, Salt/Marine Water, Soil, Solid/Liquid, Source, Taxonomy, Water Supply	Alpha/numeric, 20 characters.
Sample Taxon ITIS Code	<p>The Integrated Taxon Identification System (ITIS) is the result of a partnership among federal agencies formed to satisfy their mutual needs for scientifically credible taxonomic information. ITIS features a database with reliable information on species names and their hierarchical classification. ITIS includes documented taxonomic information for flora and fauna from both aquatic and terrestrial habitats.</p> <p>In EIM, this field is not strictly limited to ITIS Codes. It may hold one of two types of codes. For freshwater organisms, this value is an actual ITIS Code (6-characters). For marine organisms, we use National Ocean Data Center (NODC) Codes (generally 4 characters).</p>	114082	Float, 10 places.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Sample Taxon Name	The full Latin name for the taxonomic level of the sample taxon.	Arthropoda	Alpha/numeric, 60 characters.
Sample Tissue Type	Description of the Tissue Type associated with a Kingdom and Organ System. It is the lowest-level category in the Tissue-Type hierarchy.	Kingdom - Animal; Organ System - Muscular; Tissue Type Description - Muscle, visceral	Alpha/numeric, 254 characters.
Section Number	The Section of the Section/Township/Range (STR) Coordinate System in which the Location exists. Each Section is a 1-mile square tract of land containing 640 acres.		Integer, 2 places, 01-36
Section/Township/Range (STR)	Section/Township/Range (STR) is a surveyed rectangular grid system that covers most of the US. A Township is the measure of units north or south of a base line, the horizontal line where the survey began. In Washington, all Townships are north of the Willamette Baseline. A Range is the measure of units east or west of a meridian, the vertical line where the survey began. In Washington, Ranges are either east or west of the Willamette Meridian, which bisects the state through Puget Sound. Each Township/Range is six miles square and contains 36 one mile square Sections. Each Section can be broken into Quarter, Quarter-Quarter, and Quarter-Quarter-Quarter sections, designated by NE, NW, SE, and SW.	21 4 N 2 E SE SW - means the Location is in the SE Quarter of the SW Quarter of Section 21, Township 4 North, Range 2 East.	N/A

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Source Map Scale	Scale of the base map (if applicable) used to determine the geographic position of the Location.	01 - not applicable; 02 - 1:500,000; 03 - 1:250,000; 04 - 1:125,000; 05 - 1:100,000; 06 - 1:63,360; 07 - 1:62,500; 08 - 1:50,000; 09 - 1:25,000; 10 - 1:24,000; 11 - 1:20,000; 12 - 1:15,840; 13 - 1:10,000; 14 - 1:12,000; 15 - 1:25,001-1:50,000; 16 - 1:50,001-1:100,000; 17 - 1:20,001-1:25,000; 18 - 1:15,001-1:20,000; 19 - 1:10,001-1:15,000; 20 - 1:5,001-1:10,000; 21 - 1:501-1:5,000; 22 - =>1:500; 23 - <1:500; 99 - unknown	Integer, 2 places: 01-23, 99
State	The state or province in which the Location exists.	WA, OR, ID, BC.	Alpha, 2 characters: WA, OR, ID, BC.
State Plane Coordinate System (SPCS)	The Washington State Plane Coordinate System (SPCS) is part of a zone-based coordinate system developed in the US in the 1930's for use at the local/state level. Washington is divided into two zones, North and South. Each Location in Washington is also denoted by an X (E-W) and a Y (N-S) coordinate, with units in feet. The format for reporting is X coordinate, Y coordinate, Zone.	1983736 444975 S (X coordinate = 1983736, Y coordinate = 444975, Zone = South)	N/A
State Plane Coordinate System (SPCS) X Coordinate	The E-W (X-axis) coordinate of a Location in the WA State Plane Coordinate System (SPCS).		Float; 7 places, 3 decimals; Range in WA: 942431.750-2911056.000
State Plane Coordinate System (SPCS) Y Coordinate	The N-S (Y-axis) coordinate of a Location in the WA State Plane Coordinate System (SPCS).		Float; 7 places, 3 decimals; Range in WA: 81928.719-1355596.000
State Plane Coordinate System (SPCS) Zone Code	In the SPCS, Washington is divided into two zones, North and South. Identifies whether the Location's coordinates lie in the northern (N) or southern (S) zone.		Alpha, 1 character: N or S

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Studies	<p>The Study or Studies associated with a particular field Location or Result Parameter.</p> <p>A Study is an organized activity or set of monitoring activities conducted for the purpose of collecting information about a given area or natural resource. Studies typically have specific objectives and most commonly have quality assurance goals described in a Quality Assurance Project Plan (QAPP).</p> <p>Studies were formerly known as Projects in EIM.</p>		N/A
Study Area Description	A brief description of the area in which a study was conducted.	Intertidal area adjacent to Boulevard Park between Bellingham and Fairhaven.	Alpha/numeric, 254 characters
Study Area Name	The common name of the area in which the Study was conducted.	Puget Sound Basin, Columbia Basin.	Alpha/numeric, 30 characters
Study Area Type	The general type of area in which a study was conducted.	Aquifer, mountain, river.	Alpha, 15 characters
Study Ecology Lead	The lead Ecology person on a Study.	Bill Gates	Integer
Study End Date	Date on which a Study was completed. This sometimes coincides with the publication of a final report.	07/12/1998	Date, MM/DD/YYYY format
Study Lab Cost Estimate	An estimate of the approximate lab costs to be incurred during the Study.	\$20,000	Alpha/numeric, 80 characters
Study List	<p>A list of all available Studies in the EIM system.</p> <p>A Study is an organized activity or set of monitoring activities conducted for the purpose of collecting information about a given area or natural resource. Studies typically have specific objectives and most commonly have quality assurance goals described in a Quality Assurance Project Plan (QAPP).</p> <p>Studies were formerly known as Projects in EIM.</p>		Alpha/numeric, 60 characters

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Study Location Name	<p>Study Location Name is what a Location is called within a particular Study - an alias of sorts. Can be synonymous with the Location Name or a some other name of the Study Lead's choosing.</p> <p>Study Location Names were formerly known as Project Station Names in EIM.</p>	The Study Lead might choose "MS-3" (Monitoring Station 3) as the Study Location Name for a Location otherwise named "Humptulips River Near Mouth," because it better fits the context of the Study.	Alpha/numeric, 40 characters.
Study Locations	A list of all field Locations associated with this Study.		N/A
Study Name	<p>The descriptive name assigned by the Study Lead.</p> <p>Study Names were formerly known as Project Names in EIM.</p>	PCBs in Spokane River Fish in 1996, Statewide River and Stream Ambient Monitoring	Alpha/numeric, 60 characters
Study Purpose	Summary of the Study's purpose, reason(s) for initiating, and goals and expectations. If the Study was not conducted by Ecology, describe its relationship to Ecology, such as being performed under a Centennial Clean Water Grant, etc.		Alpha/numeric, 254 characters
Study Quality Assurance (QA) Level	<p>Number reflecting the perceived quality of the data associated with the Study. The values are 1 - 4, with 4 being highest quality and 1 the lowest. In order to be rated at a given level, the criteria for both planning and report documents must be met.</p> <p>LEVEL 1: PLANNING: Informal QA Documentation or No Documentation available. REPORT: Data report/spreadsheet. A QA planning document includes a description of the project, statements of project objectives, detailed sampling design including ration.</p> <p>LEVEL 2: PLANNING: Basic/Boiler-Plate or Generic QA Planning Document. REPORT: Informal/summary project report available. A QA planning document includes a description of the project, statements of project objectives, detailed sampling design including rational and sampling locations, and descriptions of, or references to, sampling, analysis and quality control procedures.</p>		Numeric, 1 character

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
	<p>LEVEL 3 PLANNING: QAPP or Equivalent. REPORT: Formal project report. A Quality Assurance Project Plan (QAPP) must follow the guidance in Ecology Publication 01-03-003, Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, http://www.ecy.wa.gov/biblio/0103003.html. Additionally, the QAPP can follow EPA's guidelines in, "The Volunteer Monitor's Guide To Quality Assurance Project Plans," EPA publication 841-B-96-003, http://www.epa.gov/owow/monitoring/volunteer. A formal project report is a document describing project objectives, procedures, results, conclusions and assessment of the quality of the data.</p> <p>LEVEL 4: PLANNING: Approved QAPP. REPORT: Peer reviewed project report. A Quality Assurance Project Plan (QAPP) must follow the guidance in Ecology Publication 01-03-003, Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, http://www.ecy.wa.gov/biblio/0103003.html. Additionally, the QAPP can follow EPA's guidelines in, "The Volunteer Monitor's Guide To Quality Assurance Project Plans," EPA publication 841-B-96-003, http://www.epa.gov/owow/monitoring/volunteer. A formal project report is a document describing project objectives, procedures, results, conclusions and assessment of the quality of the data. A peer reviewed project report means the report was checked or reviewed for accuracy and completeness by a supervisor or colleague with appropriate experience (does not require independent, outside scientific review, as for juried publications). Both the QAPP and the formal project report must be available to the user.</p>		

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Study Quality Assurance Project Plan (QAPP) Description	<p>A summary of the Quality Assurance Project Plan (QAPP) approved for the Study. The QAPP must follow the guidance in Ecology Publication 01-03-003, Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, http://www.ecy.wa.gov/biblio/0103003.html. Additionally, the QAPP can follow EPA's guidelines in, "The Volunteer Monitor's Guide To Quality Assurance Project Plans," EPA publication 841-B-96-003, http://www.epa.gov/owow/monitoring/volunteer.</p> <p>A QAPP is required for Study QA Levels 3 and 4.</p>		Alpha/numeric, 254 characters
Study Resource Estimate	An estimate of the resources, human or other, needed for a Study.	Lead Investigator, .5 FTE; Field Technician, 1.0 FTE.	Alpha/numeric, 80 characters
Study Result Description	Brief summary of the results of the Study.	Water supply is of good quality and appears ample to meet current demands with a few exceptions. Slightly elevated chloride concentrations are found around Otso Point, Lyle Point peninsula, and Cole Point peninsula. See report for more details.	Alpha/numeric, 254 characters
Study Special Requirements	Any special requirements specific to the Study.	Samples must be taken between May 1 and July 31. Permission from the Canadian government must be obtained before collecting samples.	Alpha/numeric, 254 characters
Study Start Date	Date on which the Study began. May precede date of initial field activity.	09/15/2000	Date, MM/DD/YYYY format
Study Status	Describes the current state of the Study.	<p>ACTIVE: The Study is currently active with field activities and/or data entry;</p> <p>COMPLETED: The Study has been completed. All data has been entered into EIM and a Quality Assurance (QA) review has been completed;</p> <p>DATA COMPLETED: All Study data has been collected and entered into EIM;</p> <p>ON HOLD: The Study is on hold;</p> <p>QA INCOMPLETE: A QA review has not yet been completed for the Study.</p>	Alpha, 15 characters: active, completed, data completed, on hold, QA incomplete.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Study System ID	A unique, system-generated ID assigned to each Study by EIM.		Integer
System Geographic Location ID	A Geographic Information System-generated unique ID for each Location.	1002030	N/A
Tissue Type Kingdom	The highest-level category in the hierarchy of Tissue Types. Includes Algae, Animal, Non-vascular Plant, and Vascular Plant. These can be further broken down into Tissue Organ Systems and Tissue Type.	Kingdom - Animal; Organ System - Muscular; Tissue Type - Muscle, visceral	Alpha, 20 characters.
Tissue Type Organ System	The middle-level category in the hierarchy of Tissue Types, between Kingdom and Tissue Type. The Organ System to which the Tissue Type belongs.	Kingdom - Animal; Organ System - Muscular; Tissue Type - Muscle, visceral	Alpha, 45 characters.
Township Direction Code	In the Section/Township/Range (STR) Grid System, denotes whether the Location exists north or south of a baseline, the horizontal line from which the survey began. In Washington, all Locations are north of the Willamette Baseline.		Alpha, 1 character: N or S
Township Number	In the Section/Township/Range (STR) Grid System, denotes the number of Township units north or south of a baseline, the horizontal line from which the survey began. In Washington, all Locations are north of the Willamette Baseline.		Integer, 2 places: 01-41
Unit of Measure (UOM)	Unit that represents the measurement scale accompanying or associated with a numeric value.	ppm = parts per million	Alpha/numeric, 10 characters.
Unit of Measure (UOM) Description	Brief description of the Unit of Measure (UOM).	parts per million = ppm	Alpha/numeric, 50 characters
Unit of Measure (UOM) Type	Groupings of related Units of Measure (UOM).	UOM Type "Length" includes feet, meters, inches, centimeters, etc.	Alpha/numeric, 10 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Universal Transverse Mercator (UTM) Grid System	The Universal Transverse Mercator (UTM) Grid System was developed by the National Imagery and Mapping Agency for military use around the world. In this grid, the world is divided into 60 north-south trending zones, each 6 degrees wide in longitude. Washington State is encompassed by zones 10 and 11. In each zone, coordinates are measured north and east in meters. Northing values are measured from a value of 10,000,000 meters at the Equator. Easting values are measured from a central meridian through the middle of each zone. Each central meridian is assigned a value of 500,000 meters. Easting values to the west of the central meridian are subtracted from 500,000; to the east, added to 500,000. A Location is specified by indicating the easting value, northing value, and zone number.	365000.00 (easting) 540000.000 (northing) 10 (zone number)	N/A
Universal Transverse Mercator (UTM) X Coordinate	Easting (X-axis) coordinate of a Location in the UTM Grid System (i.e. horizontal distance from the reference edge of the UTM zone). In meters.	Range in WA: 363487.031-971166.625	Float; 7 places, 3 decimals; Range in WA: 363487.031-971166.625
Universal Transverse Mercator (UTM) Y Coordinate	Northing (Y-axis) coordinate of the Location in the UTM Grid System (i.e. the vertical distance from the equator). In meters.	Range in WA: 503595.500-5444537.000	Float; 7 places, 3 decimals; Range in WA: 503595.500-5444537.000
Universal Transverse Mercator (UTM) Zone Code	In the UTM grid, the world is divided into 60 north-south trending zones, each 6 degrees wide in longitude. Washington State is encompassed by zones 10 and 11.	Zones covering WA: 10, 11	Integer; 2 places; Zones covering WA: 10, 11
User Location ID	The unique identification code assigned by the user, typically the Study Lead, to uniquely identify the Location in EIM. For wells, use the Well Tag Number. Formerly known as a Station ID in EIM.	01WCI02B, AAB123	Alpha/numeric, 15 characters.
User Study ID	The unique identification code (text and/or numbers) assigned by the user, typically Study Lead, to uniquely identify the Study in EIM. Formerly known as a Project ID in EIM.	AJOH0012; Grant numbers can be used for a study related to a grant (G02-1234).	Alpha/numeric, 8 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Vertical Accuracy Measure	The range within which the measured value of the Location's elevation may vary from the actual value.	01 - <0.01m; 02 - =>0.01m <0.1m; 03 - =>0.1m <1m; 04 - 10ft(3m); 05 - 20ft(6m); 06 - 40ft(12m); 07 - 100ft(35m); 08 - 180(55m); 09 - 250ft; 10 - 500ft; 11 - 1000ft; 12 - 2000ft; 13 - >2000ft; 99 - unknown	Integer, 2 places: 01-13, 99
Vertical Collection Method	The technique used to collect the vertical coordinate (elevation) of the Location.	01 - bathymetric sounding; 02 - cadastral survey (conventional land survey); 03 - digital elevation model; 04 - GPS code phase (measurements based on the pseudo random code broadcast by the satellite); 05 - GPS carrier phase (employs the satellite code's carrier signal to improve accuracy); 06 - GPS kinematic (tracking location while moving using carrier phase); 07 - GPS unknown; 08 - hand measured, paper map; 09 - map-derived; 10 - other engineering survey; 11 - photogrammetry; 99 - unknown.	Integer, 2 places: 01-11, 99
Vertical Datum	Model used to match the elevation of features on the ground to Locations on a map.	01 - N. American Vertical Datum of 1988 (NAVD88); 02 - N. American Geodetic Vertical Datum of 1929 (NGVD29); 03 - World Geodetic System of 1984 (WGS84 or GPS NAVD88); 99 - unknown	Integer, 2 places: 01-03, 99
Vertical Measure	The number of meters or feet above or below a vertical reference point (ex. mean sea level) at the Location latitude/longitude. This value is negative below mean sea level.	-9999999.999 - 0000000.000 - 9999999.999	Float, 7 places, 3 decimals (-9999999.999-0000000.000-9999999.999)

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Vertical Measure Unit of Measure (UOM)	The Unit of Measure in which the Vertical Measure (Elevation) of the Location is expressed. In feet (FT) or meters (M).		Alpha, 2 characters: FT or M.
Vertical Reference	Describes the vertical reference point from which the elevation of the Location was calculated.	Elevation taken from: 01 - mean sea level (most common); 02 - mean high level; 03 - mean high high level; 04 - mean low level; 05 - mean low low level; 06 - local tide datum; 07 - highest tide; 08 - mean (half) tide; 09 - lowest tide; 10 - local facility datum; 99 - unknown	Integer, 2 places: 01-10, 99
Water Resource Inventory Area (WRIA) Number	The identification number of the Washington State Water Resource Inventory Area (WRIA), typically a major watershed, in which the field Location exists. There are 62 WRIAs in Washington State.	WRIA 12 - Chambers-Clover	Integer, 2 places: 01-62
Well Aquifer Test Flag	A Yes (Y) or No (N) flag that indicates whether an aquifer testing has been performed (does not include short tests performed by driller upon well completion).		Alpha, 1 character: Y or N.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Completion	Indicates the method of completion or the nature of the openings that allow water to enter the well.	GRAVL PACK PERF - gravel packed with perforated casing; GRAVL PACK SCRN - gravel packed with screened casing; HORZ GALLERY - horizontal conduit, such as infiltration gallery; OPEN END - intake occurs via bottom of casing; OPEN HOLE - most common in bedrock, uncased hole extends below the bottom of the casing; PERF/SLOTTED - intake occurs via perforations or slots in casing; POROUS CONCRETE - most common in shallow, dug wells; SAND POINT - narrow, shallow, water jet-driven well, usually in sands; SCREEN - intake occurs via screen in casing; WALLED - most common in shallow, dug wells ; OTHER - use if none of the other categories fit.	Alpha, 15 characters: GRAVL PACK PERF, GRAVL PACK SCRN, HORZ GALLERY, OPEN END, OPEN HOLE, PERF/SLOTTED, POROUS CONCRETE, SAND POINT, SCREEN, WALLED, OTHER
Well Completion Depth	Depth of a well below land surface datum (LSD) upon completion of construction. This is ideally determined by sounding the well; however, in most cases, the depth recorded by the driller is reported. In feet or meters.	48.84	Float, 5 places, 3 decimals.
Well Completion Depth Unit of Measure (UOM)	Units in which a Well Completion Depth is expressed. In feet (F) or meters (M).		Alpha, 2 characters: FT or M.
Well Construction Comment	Brief comments or other information about the construction of the well.		Alpha, 254 characters.
Well Construction End Date	Date that construction was completed on a well or borehole.	01-01-2000	Date, MM/DD/YYYY format.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Construction Method	Identifies the method used to create the borehole.	AP - air percussion; AR - air rotary; BA - bored/augured; CT - cable tool; DR - driven; DU - dug; DW - drive and wash; HR - hydraulic rotary; JE - jetted; RR - reverse rotary; TR - trenching.	Alpha, 2 characters: AP, AR, BA, CT, DR, DU, DW, HR, JE, RR, TR
Well Construction Start Date	The date the borehole excavation began.		Date, MM/DD/YYYY format.
Well Development Method	Identifies the method by which the efficiency of the well was improved after it was constructed.	AL - Airlift; BA - Bail; CT - Chemical Treatment; JE - Jet; SB - Surge Block.	Alpha, 2 characters: AL, BA, CT, JE, SB
Well Disinfected Flag	A Yes (Y) or No (N) flag that indicates whether the well was disinfected at the time of completion.		Alpha, 1 character: Y or N.
Well Gradient	Identifies the relationship of a well to a potential source of ground-water contamination, in terms of gradient (i.e., direction of ground-water flow). Applicable to wells monitoring a known source of potential ground-water contamination, such as landfills and RCRA facilities.	C - cross-gradient; D - downgradient; N - unknown; U - upgradient.	Alpha, 1 characters: C, D, N, U
Well Hole Depth	Depth below land surface to the bottom of the hole on completion of drilling – often deeper than the Well Completion Depth.	22.5	Float, 5 places, 3 decimals.
Well Hole Depth Unit of Measure (UOM)	Units in which the Well Location Hole Depth is expressed. In feet (F) or meters (M).		Alpha, 2 characters: FT or M.
Well ID	For a Well Location with multiple wells or completions, a user-assigned number that uniquely identifies each well or completion. Required for a Well Location with multiple wells or completions, unless each well or completion has a separate Well Tag Number. Most wells will have the number "1."	1, 2, 3, etc.	Integer.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Indicator	A Yes (Y) or No (N) flag that indicates whether the Location is a Well. Additional data must be entered for a Well Location.		Alpha, 1 character: Y or N.
Well Indicator Flag	A Yes (Y) or No (N) flag that indicates whether the Location is a Well. Additional data must be entered for a Well Location.		Alpha, 1 character: Y or N.
Well Interval Borehole Diameter	The diameter of the borehole within a specific Well Interval. Expressed in units of feet (FT), meters (M), centimeters (CM), or inches (IN).	6.75	Float, 3 places. 3 decimals.
Well Interval Borehole Diameter Unit of Measure (UOM)	Units in which the Borehole Diameter is expressed. In feet (FT), meters (M), inches (IN), or centimeters (CM).		Alpha, 2 characters: FT, M, IN, CM.
Well Interval Casing Inside Diameter	The diameter of the inside of the Well Casing for a particular Well Interval. In centimeters (CM) or inches (IN).	6	Float, 3 places, 2 decimals.
Well Interval Casing Inside Diameter Unit of Measure (UOM)	Units in which the Casing Inside Diameter is expressed. In centimeters (CM) or inches (IN).		Alpha, 2 characters: CM or IN
Well Interval Casing Material Type	The type of material from which the well casing is made.	Brass or bronze; Brick; Concrete; Copper; Fiberglass; Iron, galvanized; Iron, wrought; Metal, other; Plastic, other; Plastic, PVC; Rock or stone; Steel, coated; Steel, other; Steel, stainless; Teflon; Tile, concrete or other material; Wood; Other material; Unknown	Alpha, 15 characters: Brass, Brick, Concrete, Copper, Fiberglass, IronGalvanized, IronWrought, MetalOther, PlasticOther, PlasticPVC, Rock, SteelCoated, SteelOther, SteelStainless, Teflon, Tile, Wood, Other, Unknown

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Interval Casing Thickness	The thickness of the Well Casing within a particular Well Interval. In centimeters (CM), millimeters (MM), or inches (IN).	0.5	Float, 1 place, 3 decimals.
Well Interval Casing Thickness Unit of Measure (UOM)	Units in which the Casing Thickness is expressed. In centimeters (CM), millimeters (MM), or inches (IN).		Alpha, 2 characters: CM, MM, or IN
Well Interval Depth to Bottom	The distance from the land surface datum (LSD) to the bottom of the Well Interval being described. In feet (FT) or meters (M).		Float, 5 places, 3 decimals.
Well Interval Depth to Top	The distance from the land surface datum (LSD) to the top of the Well Interval being described. In feet (FT) or meters (M).		Float, 5 places, 3 decimals
Well Interval Depth Unit of Measure (UOM)	Units in which the Well Interval Depth to Top and the Well Interval Depth to Bottom are expressed. In feet (FT) or meters (M).		Alpha, 2 characters: FT or M.
Well Interval Fill Material Type	Identifies the type of material that fills the annular space for a particular Well Interval. Includes material used as a surface seal.	Bentonite grout (chips, granules, pellets, slurry); Neat cement grout (Portland cement and water); Clay, other; Concrete; Gravel; Packer; Puddling clay (well cuttings and bentonite - WA banned in 1998); Sand; Sand and gravel; Well cuttings (WA banned in 1998); None; Other material; Unknown.	Alpha, 15 characters: Bentonite, CementGrout, Clay, Concrete, Gravel, Packer, PuddlingClay, Sand, SandGravel, Cuttings, None, Other, Unknown
Well Interval Fill Thickness	The vertical thickness of the Fill Material in the annular space. Can include a surface seal or gravel pack around a well screen. In centimeters (CM) or inches (IN).	3.5	Float, 3 places, 3 decimals.
Well Interval Fill Thickness Unit of Measure (UOM)	Units in which the Fill Thickness is expressed. In centimeters (CM), inches (IN), or millimeters (MM).		Alpha, 2 characters: CM, IN, MM.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Interval Fill Volume	The volume of Fill for a particular Well Interval. Equals the fill thickness times the fill height. In cubic feet, cubic meters, or cubic yards.	4.5	Float, 4 places, 3 decimals.
Well Interval Fill Volume Unit of Measure (UOM)	Units in which the Fill Volume is expressed. In cubic feet, cubic meters, or cubic yards.		Alpha, 12 characters: CUBIC FEET, CUBIC METERS, CUBIC YARDS.
Well Interval Opening Description	Description that elaborates upon the Opening.	The wire-wound screen was telescoped into the casing with an inflatable packer.	Alpha, 120 characters.
Well Interval Opening Length	The measure of the length of an Opening within a particular Well Interval. In inches (IN), centimeters (CM), feet (FT) or meters (M).	5.25	Float, 2 places, 3 decimals.
Well Interval Opening Length Unit of Measure (UOM)	Units in which the Opening Length is expressed. In inches (IN), centimeters (CM), feet (FT) or meters (M).		Alpha, 2 characters: FT, M, IN, CM.
Well Interval Opening Material Type	The type of material from which the Well Interval Opening (screen or otherwise) is constructed.	Brass or bronze; Concrete; Fiberglass; Iron, galvanized; Iron, wrought; Metal, other; Plastic, other; Plastic, PVC; Steel, coated; Steel, other; Steel, stainless; Tile, concrete or other material; Other material; Unknown	Alpha, 15 characters: Brass, Concrete, Fiberglass, IronGalvanized, IronWrought, MetalOther, PlasticOther, PlasticPVC, SteelCoated, SteelOther, SteelStainless, Tile, Other, Unknown
Well Interval Opening Mesh Size	The measure of the mesh size or screen Opening within a particular Well Interval. In centimeters (CM), inches (IN) and Mesh Size (NU, for "no units").	8.333 (IN or CM); 25 (NU)	Float, 2 places, 3 decimals.
Well Interval Opening Mesh Size Unit of Measure (UOM)	Units in which the Opening Mesh Size is expressed. In inches (IN), centimeters (CM), and Mesh Size (NU, for "no units").		Alpha, 2 characters: IN, CM, NU.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Interval Opening Type	The type of Opening within a particular Well Interval. Openings are permeable portions of the Well Casing or lining.	Fractured rock; Open-ended casing; Open hole; Perforated pipe; Porous material, undifferentiated; Screen - continuous slot or wire-wound; Screen - direct-push (e.g. drive, sand or well point); Screen - louver, bridge-slot, or shutter; Screen - mesh; Screen - pipe-base (continuous slot jacket over slotted pipe core); Screen - slotted pipe; Screen - type not known; Unscreened; Walled or shored; Other; Unknown	Alpha, 15 characters: FracturedRock, OpenEnd, OpenHole, Perforated, Porous, ScreenContin, ScreenDirctPush, ScreenLouver, ScreenMesh, ScreenPipeBase, ScreenSlotted, ScreenUnknown, Unscreened, Walled, Other, Unknown
Well Interval Opening Width	The width of an Opening within a particular Well Interval. Constitutes the short dimension for perforations or slots. Width of continuous-slot, wire-wound, or mesh screens falls under Well Interval Opening Mesh Size. In inches (IN) or centimeters (CM).	0.015	Float, 4 places, 3 decimals.
Well Interval Opening Width Unit of Measure (UOM)	Units in which the Opening Width is expressed. In inches (IN) or centimeters (CM).		Alpha, 2 characters: IN or CM
Well Interval System ID	A unique, system-generated ID assigned to each Well Interval by EIM.		Integer
Well Interval Type	A vertically defined (upper and lower depth) section of interest within a Well or Borehole. Derived from USGS NWIS-II.	The seven Well Interval Types are: Hydrogeologic unit; Lithologic unit; Geologic unit; Casing; Fill or annulus; Opening or intake; Borehole.	Alpha, 18 characters: HydroUnit, LithoUnit, GeoUnit, Casing, Fill, Opening, Borehole
Well Interval Underground Unit Type	Indicates whether the underground unit is of the geologic, hydrogeologic, or lithologic type.		Alpha, 13 characters

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Interval Underground Unit USGS Code	Unique code assigned to a type of underground unit. Lithologic Unit is the only Underground Unit Type EIM is currently using because official Geologic and Hydrologic Units have not been defined in Washington State. Lithologic Units are a mixture of United States Geological Survey (USGS)(4 characters) and Unified Soil Classification System (2 characters) codes. Each code has an accompanying name.	BLDR - Boulder; CL - Clays; GC - Gravels, clayey, etc.	Alpha, 12 characters.
Well Interval Underground Unit USGS Name	The official name for an underground unit. Lithologic Unit is the only Underground Unit Type EIM is currently using because official Geologic and Hydrologic Units have not been defined in Washington State. Lithologic Units are a mixture of United States Geological Survey (USGS) and Unified Soil Classification System names. Each name has an accompanying code.	BLDR - Boulder; CL - Clays; GC - Gravels, clayey, etc.	Alpha, 120 characters.
Well Location System ID	A unique, system-generated ID assigned to each Well Location by EIM.		Integer
Well Location(s)	A monitoring Location that is a well. A Location is the physical place where sample collection, measurements, or observations occur. It is uniquely identified by a User Location ID and Location Name. Each Location is required to have a documented geographic position, reported by EIM as latitude and longitude values.		N/A
Well Log Date	The date on which the well or borehole or well was logged.	03/15/2002	Date, MM/DD/YYYY format.
Well Log Location Description	Description of the place where the well or borehole log can be found.	In the Ecology Southwest Regional Office files.	Alpha, 120 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Log Report Format	The physical format of the well or borehole log.	Other electronic or scanned; Electronic standard format (Log ASCII, etc.); Other machine readable; Published; Rock chip chemistry; Paper copy; Other; Unknown	Alpha, 10 characters: ElectronicOther, ElectronicStd, Machine, Published, RockChip, PaperCopy, Other, Unknown
Well Log System ID	A unique, system-generated ID assigned to each Well Log record by EIM.		Integer.
Well Log Type	The method used to log the well or borehole.	Acoustic televiewer; Acoustic velocity or sonic; Caliper (borehole diameter); Casing collar; Core; Dipmeter; Driller's; Drilling time; Electrical; Flow meter or fluid velocity; Fluid conductivity; Fluid resistivity; Gamma-gamma or density; Gamma ray; Geologist's or sample; Induction; Lateral resistivity; Long-normal resistivity; Micro-lateral resistivity; Micro-normal resistivity; Micro-resistivity; Nuclear magnetic resonance; Photographic; Short-normal resistivity; Single-point resistivity; Spontaneous potential; Temperature; Tracer; Video; Other; Unknown	Alpha, 27 characters: AcousticTelev, AcousticVeloc, Caliper, Collar, Core, Dipmeter, Drillers, DrillingTime, Electrical, FlowMeter, FluidConduct, FluidResistiv, GammaGamma, GammRay, Geologists, Induction, LateralResistiv, LongNormal, MicroLateral, MicroNormal, MicroResistiv, Neutron, MagneticReson, Photographic, ShortNormal, Resistance, SponPotential, Temperature, Tracer, Video, Other, Unknown
Well Maximum Casing Diameter	Largest diameter of the casing within a well. In centimeters or inches.	8	Float, 3 places, 2 decimals.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Maximum Casing Diameter Unit of Measure (UOM)	Units in which the Well Maximum Casing Diameter is expressed. In centimeters (cm) or inches (in).		Alpha, 2 characters: CM or IN.
Well Measuring Point Description	Describes the point from which the water level was measured.	Top of casing, notch on north side.	Alpha, 40 characters.
Well Measuring Point Effective Date	Date when a particular measuring point was first used.	10/22/1999	Date, MM/DD/YYYY format.
Well Measuring Point End Date	Date when a particular Measuring Point was abandoned.	02/14/2003	Date, MM/DD/YYYY format.
Well Measuring Point Height	Height above or below the land surface datum (LSD) of a well from which the measurement is taken. A measuring point below the Well Location LSD is preceded by a minus (-) sign. In feet (FT) or meters (M).	3, -0.5	Float, 5 places, 3 decimals.
Well Measuring Point Height Unit of Measure (UOM)	The units in which the Well Location Measuring Point Height is expressed. In feet (FT) or meters (M).		Alpha, 2 characters: FT or M.
Well Measuring Point Name	The name of the Well Measuring Point associated with the Well Measuring Point Description. While most wells only have one measuring point, some have two or more for various reasons. Sometimes an old measuring point can no longer be used and a new one must be established. Other times, different groups measuring the same well might establish their own measuring points.	MP1, MP2	Alpha, 8 characters.
Well Measuring Point System ID	A unique, system-generated ID assigned to each Well Measuring Point by EIM.		Integer
Well Natural Flow Flag	A Yes (Y) or No (N) flag that indicates whether a well is flowing under artesian pressure. For confined aquifers only.		Alpha, 1 character: Y or N.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Owner Name	Name of the well owner. This information is not made public without filing a formal request.	Department of Ecology, Robert Jones, Philip Services Corp.	Alpha, 70 characters.
Well Pump Depth	The depth of the top of the Well Pump from the Well Location land surface datum (LSD). In feet (F) or meters (M).	50.75	Float, 5 places, 3 decimals.
Well Pump Depth Unit of Measure (UOM)	Units in which the Well Pump Depth is expressed. In feet (FT) or meters (M).		Alpha, 2 characters.
Well Pump Efficiency Percentage	<p>The efficiency of the Well Pump, expressed as a percentage.</p> <p>Calculated by the following equation:</p> $\text{Well Pump Efficiency Percentage} = \frac{[\text{Discharge (GPM)} * \text{Total Head (FT)}]}{3960 * \text{Input Horsepower}}$	70%	Alpha, 10 characters.
Well Pump Install Date	The date the Well Pump was installed.	02/15/2002	Date, MM/DD/YYYY format.
Well Pump Intake Depth	The depth to the bottom of the pump bowls or depth of pump intake below the Well Location's land surface datum. Alternatively, the maximum distance the water level can be drawn down in the well before the pump breaks suction. In feet (F) or meters (M).		Float, 5 places, 3 decimals.
Well Pump Intake Depth Unit of Measure (UOM)	Units in which the Well Pump Intake Depth is expressed. In feet (F) or meters (M).		Alpha, 2 characters.
Well Pump Manufacturer Name	The name of the well pump manufacturer.	HydroPump, Inc.	Alpha, 30 characters.
Well Pump Model	The model number and/or model name of the pump servicing the well.	QPUMP 2000	Alpha/numeric, 20 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Pump Power Source	Indicates the type of power used to power the Well Pump.	Battery; Diesel engine; Electric motor; Gasoline engine; Hand; LP gas; Natural gas; Windmill; Other; Unknown	Alpha, 15 characters: Battery, Diesel, Electric, Gasoline, Hand, LPGas, NaturalGas, Windmill, Other, Unknown
Well Pump Rated Capacity	The rated capacity of the pump servicing the well, as stated by the manufacturer. In gallons per minute (GPM), cubic feet per second (CFS), or cubic feet per minute (CFM).	70 (GPM)	Float, 4 places, 2 decimals.
Well Pump Rated Capacity Unit of Measure (UOM)	Units in which the Well Pump Rated Capacity is expressed. In gallons per minute (GPM), cubic feet per second (CFS), or cubic feet per minute (CFM).		Alpha, 3 characters: GPM, CFS, CFM
Well Pump Rated Power	The power rating of the pump servicing the well at the manufacturer's specified operating RPM. In horsepower (H) or watts (W).	0.5 (horsepower), 40.00 (watts)	Float, 2 places, 2 decimals.
Well Pump Rated Power Unit of Measure (UOM)	Units in which the Well Pump Rated Power is expressed. In horsepower (H) or watts (W).		Alpha, 1 character: H, W
Well Pump Removal Date	The date the Well Pump was removed.	09/23/2003	Date, MM/DD/YYYY format.
Well Pump RPM	The designed operating speed of the Well Pump in revolutions per minute (RPMs) as stated by the manufacturer.	375 (RPM)	Float
Well Pump Serial Number	The serial number of the pump servicing the well.	e23463458	Alpha/numeric, 20 characters.
Well Pump System ID	A unique, system-generated ID assigned to each Well Pump by EIM.		Integer

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Pump Total Head	Pumping rate is dependent upon the head (essentially the pressure or units of lift) against which the pump is operating. Total Head is calculated by adding (1) the distance from the Well Location land surface datum (LSD) or discharge point to the pumping water level in the well, (2) the distance between the LSD or discharge point and the point of use, and (3) the friction loss from the pipes. In feet (FT) or meters (M).	22	Integer.
Well Pump Total Head Unit of Measure (UOM)	Units in which the Well Pump Total Head is expressed. In feet (FT) or meters (M).		Alpha, 2 characters: FT, M.
Well Pump Type	Identifies the type of pump servicing the well.	Air-lift; Bucket or bailer; Centrifugal; Jet; Piston/reciprocating; Rotary/peristaltic; Submersible; Suction-lift; Turbine; Other; Unknown	Alpha, 16 characters: Airlift, Bucket, Centrifugal, Jet, Piston, Rotary, Submersible, Suction, Turbine, Other, Unknown
Well Status	Describes whether a well is still in existence or has been abandoned.	ABANDONED, ACTIVE	Alpha, 9 characters: ABANDONED, ACTIVE
Well Tag Number	Unique number assigned to wells in WA State. The number is assigned by Ecology. It is stamped on an aluminum identification tag that is affixed to a well by a local agency, licensed driller, Ecology, etc. Because it is a unique identifier recognized throughout Washington, it is often also used in EIM as the User Location ID, the Location Name, and the Study Location Name.	AAB123	Alpha, 6 characters.

EIM Data Field Definitions for Database Search

Title	Description	Example	Specification
Well Use	Identifies the primary use of the well.	Anode; Dewatering; Drainage; Geothermal; Heat Reservoir; Injection; Monitoring; Observation; Oil and gas well; Remediation; Repressurization; Seismic; Test Hole; Waste Disposal; Withdrawal of Water.	Alpha, 30 characters: ANODE, DEWATER, DRAINAGE, GEOTHERMAL, HEAT RESERVOIR, INJECTION, MONITOR, OBSERVATION, OIL AND GAS WELL, OTHER, RECHARGE, REMEDIATION, REPRESSURIZAT ION, SEISMIC, TEST HOLE, WASTE DISPOSAL, WITHDRAWAL OF WATER
Well Water Use	Identifies the primary use of water from a well.	Air Conditioning; Aquaculture; Bottling; Commercial; Desalination; Domestic; Fire-Fighting; Industrial; Industrial (Cooling); Institutional; Irrigation; Livestock Watering; Medicinal; Mining; Power; Public Water Supply; Recreation; Other; Unused	Alpha, 30 characters: AIR CONDITIONING, AQUACULTURE, BOTTLING, COMMERCIAL, DESALINATION, DOMESTIC, FIRE FIGHTING, INDUSTRIAL, INDUSTRIAL(CO OLING), INSTITUTIONAL, IRRIGATION, LIVESTOCK WATERING, MEDICINAL, MINING, OTHER, POWER, PUBLIC WATER SUPPLY, RECREATION, UNUSED
Wellhead Protection Area	The name of the wellhead protection area in which the well is located. (Check with the Department of Health, Drinking Water Division.)	McAllister Springs Wellhead Protection Area	Alpha, 40 characters.
Zip Code	The zip code or postal code of the Location's physical address.	98513; V0B 1H0	Alpha, 10 characters.